SPECIFIC OPERATIONS CHECKLIST

COMMERCIAL PRODUCTS TESTING

Instructions to the Assessor: The checklist addresses specific accreditation criteria prescribed in Section 285.33, *Criteria for Accreditation*, of the Commercial Products Testing (CPT) Program Handbook. Included also are instructions and comments sheets used for observing actual demonstrations of the performance of selected test methods. These criteria **do not** supersede the *Criteria for Accreditation*, based on Section 285.33 of the *NVLAP Procedures and General Requirements* prescribed in (NIST Handbook 150), which are addressed in the GENERAL OPERATIONS CHECKLIST.

Place an "X" beside any of the following items which represent a deficiency. Place a "C" beside each item on which you are commenting for other reasons. Record the item number and your deficiency explanation and/or comments on the appropriate comment sheet(s). Place a check beside all other items you observed or verified at the laboratory.

1 QUALITY SYSTEM

_____ 1.1 The quality manual or operating procedures provides detailed instructions, including descriptions of equipment, that the laboratory follows in conducting test methods for which it seeks accreditation in the areas of paints, paper, plastics, plumbing, and seals/sealants.

_____ 1.2 The quality manual lists the range (e.g., product type, size, shape, density, and property level) of test specimens that a laboratory can test for each test method for which accreditation is sought.

_____ 1.3 The quality manual describes practices for maintenance and calibration, including calibration interval, of the equipment used in conducting the tests in the CPT Program.

2 PERSONNEL

Personnel competency for CPT testing includes applicable portions of the following, as a minimum:

_____ 2.1 general requirements of the test methods;

_____ 2.2 specimen preparation, dimensional measurements, mounting techniques;

_____ 2.3 operation of environmental control apparatus, including humidity cabinets and cold boxes;

_____ 2.4 procedures for environmental conditioning of specimens;

_____ 2.5 calibration requirements of test machines;

_____ 2.6 determination of moisture content and specific gravity;

_____ 2.7 calibration requirements and operation of load/deformation/strain-recording equipment;

_____ 2.8 operation of drying ovens and furnaces;

_____ 2.9 description of specimen and test setup;

_____ 2.10 use of balances and scales for mass determination;

_____ 2.11 use of dimensional measuring devices (calipers, micrometers, etc.);

_____ 2.12 use of automatic data logging and readout instrumentation; and

_____ 2.13 operation of ammeters, ohmmeters, voltmeters, wattmeters, and potentiometers.

3 CALIBRATION AND TEST METHODS

3.1 Laboratory Operations and Test Standards

_____ 3.1.1 Samples and test specimens are uniquely identified for correlation with related records.

_____ 3.1.2 Test data forms (as required by the reference standard or developed in-house) are properly completed.

_____ 3.1.3 The laboratory maintains a dated log book or record for the tests it performs.

_____ 3.1.4 Measurement equipment is appropriate for the test method.

_____ 3.1.5 The latest version of the test standards for which the laboratory seeks accreditation is available.

3.2 Calibration Requirements

_____ Test equipment, devices, and instruments meet the requirements of the appropriate standards and are properly calibrated (and meet calibration conditions).

Specific calibration requirements for the CPT program are:

- in accordance with the manufacturer's recommendation;
- the test method; or
- as specified in the following table;

whichever results in shorter time periods between calibrations.

It is the responsibility of the laboratories to ensure that **all** equipment is properly maintained and calibrated as required by the standards; the on-site assessor will check to ensure that the laboratories are in compliance for **all** equipment used. Due to the broad technical range of test methods covered by CPT, all equipment is not listed below.

Apparatus/Instrumentation	*Calibration or Verification Frequency*
dimensional measuring devices (calipers, micrometers, etc.)	annually
drying ovens	annually
furnaces	annually
tensile/compression test machines and load cells	annually
scales and balances	annually
automatic data logging and readout*	annually
thermostats*	annually
potentiometers*	annually
ammeters, ohmmeters, voltmeters and wattmeters*	annually
environmental conditioning units	quarterly
humidity cabinets	quarterly
cold boxes	quarterly

* If the calibration of the equipment is shown to vary due to the lack of modern solid-state electronics, then the entry under *Frequency* shall be 6 months.

3.3 Mechanical, Physical, and Chemical Properties

_____ 3.3.1 Samples are properly prepared, environmentally conditioned (including proper moisture content), handled, and maintained before testing.

_____ 3.3.2 Measurements of specimen dimensions and mass are determined correctly; descriptions of important sample characteristics are recorded when required.

_____ 3.3.3 Test(s) are conducted within the specified environmental conditions, including temperature and relative humidity.

_____ 3.3.4 Specimens and products are tested in the specified orientation, if any, and with proper test setup.

_____ 3.3.5 For mechanical testing, the proper rate of load, strain, or deformation is applied to specimen.

CPT SPECIFIC OPERATIONS CHECKLIST - COMMENTS AND DEFICIENCIES

Instructions to the Assessor: Use this sheet to document comments and deficiencies. For each, identify the appropriate item number from the checklist. Identify comments with a "C" and deficiencies with an "X." If additional space is needed, make copies of this page (or use additional blank sheets).

Item No.	*Comments and/or Deficiencies*